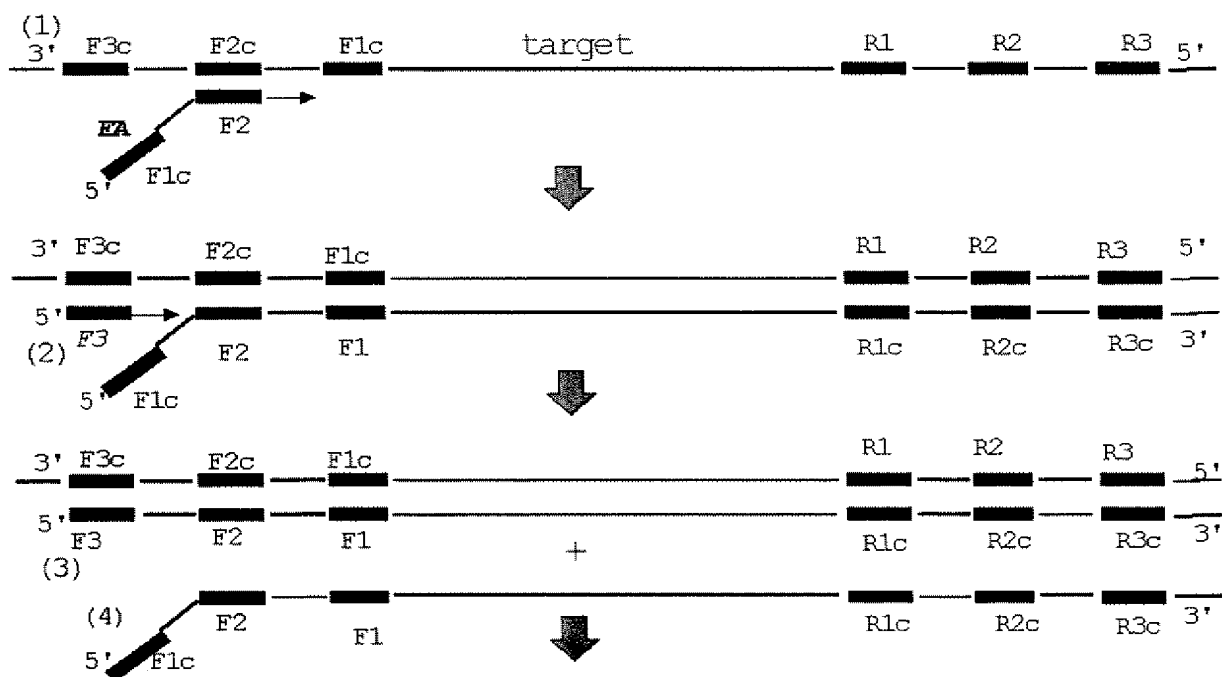


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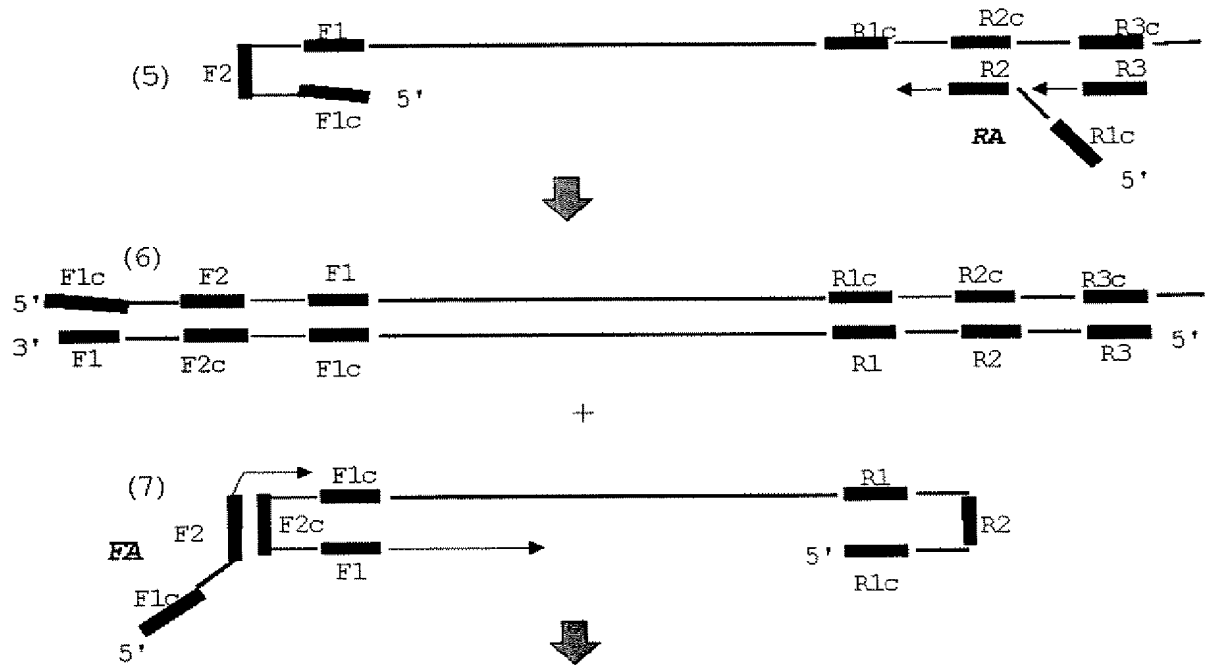
Fig. 1



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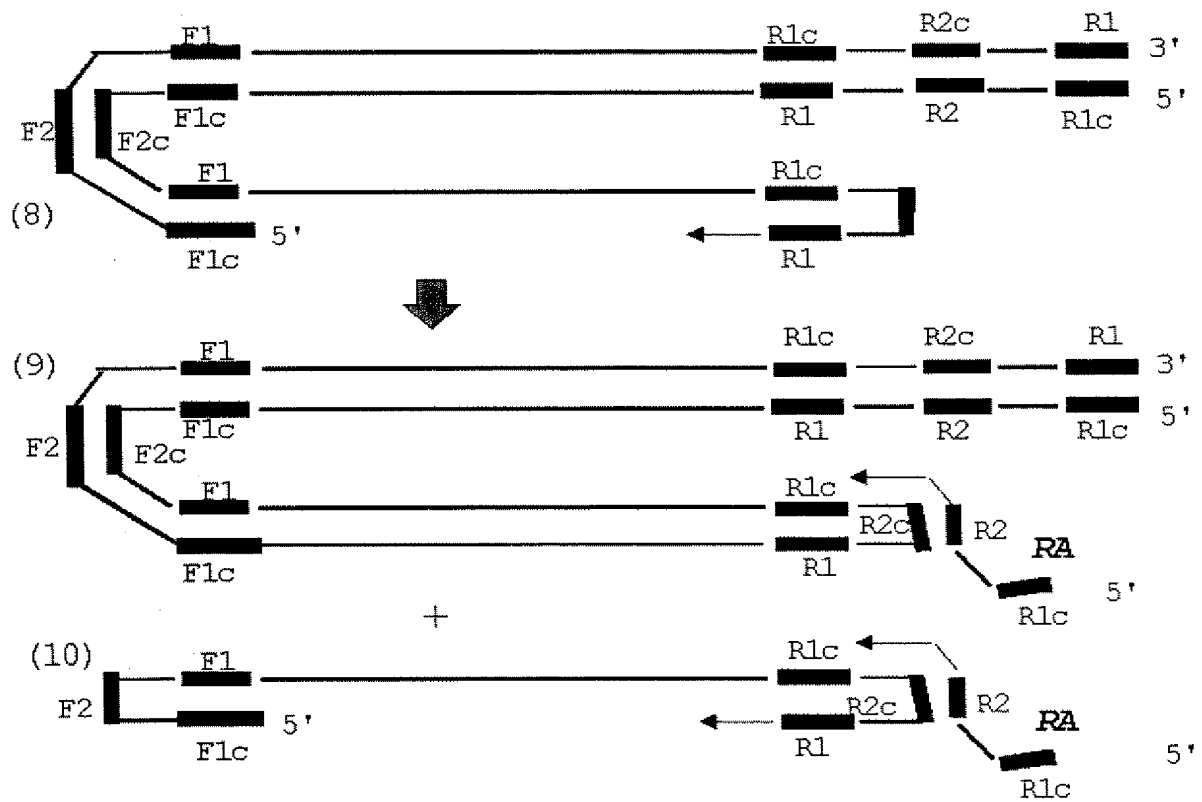
Fig. 2



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Fig. 3



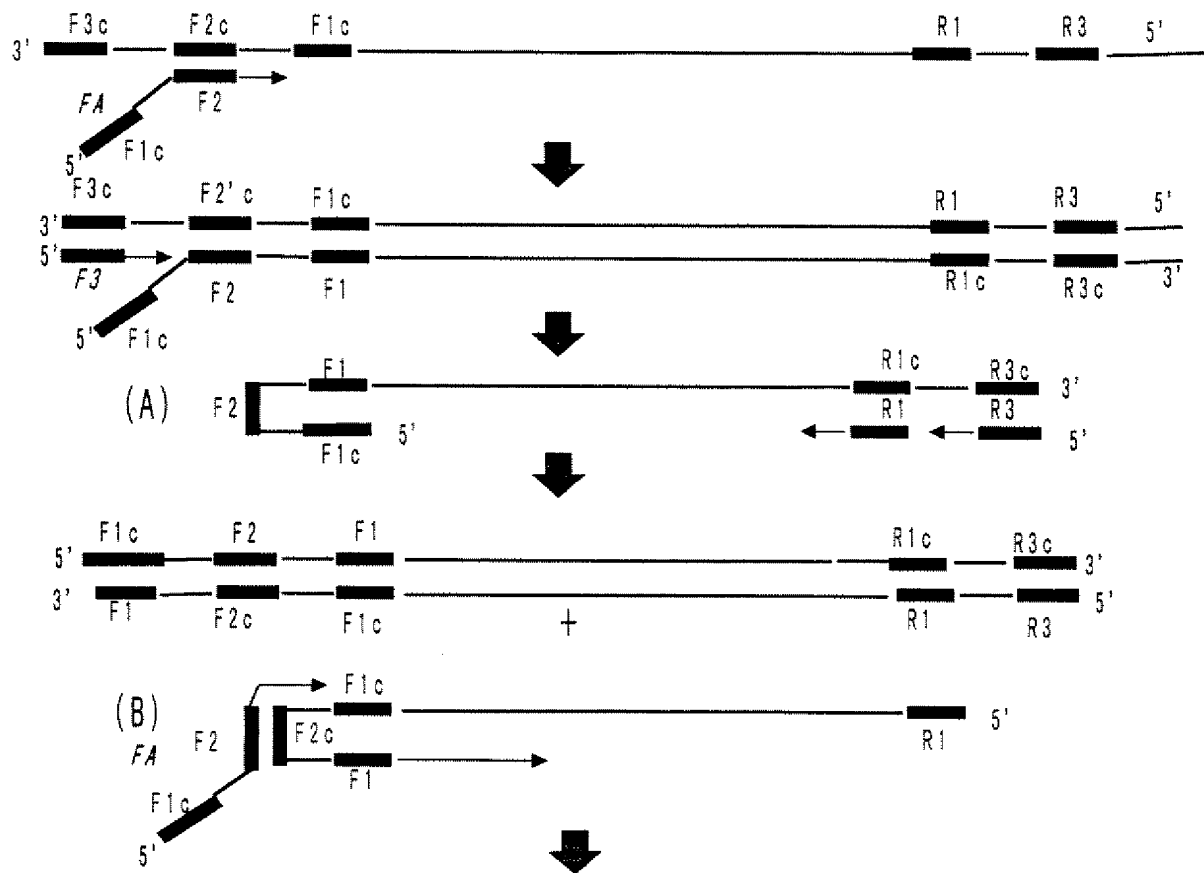
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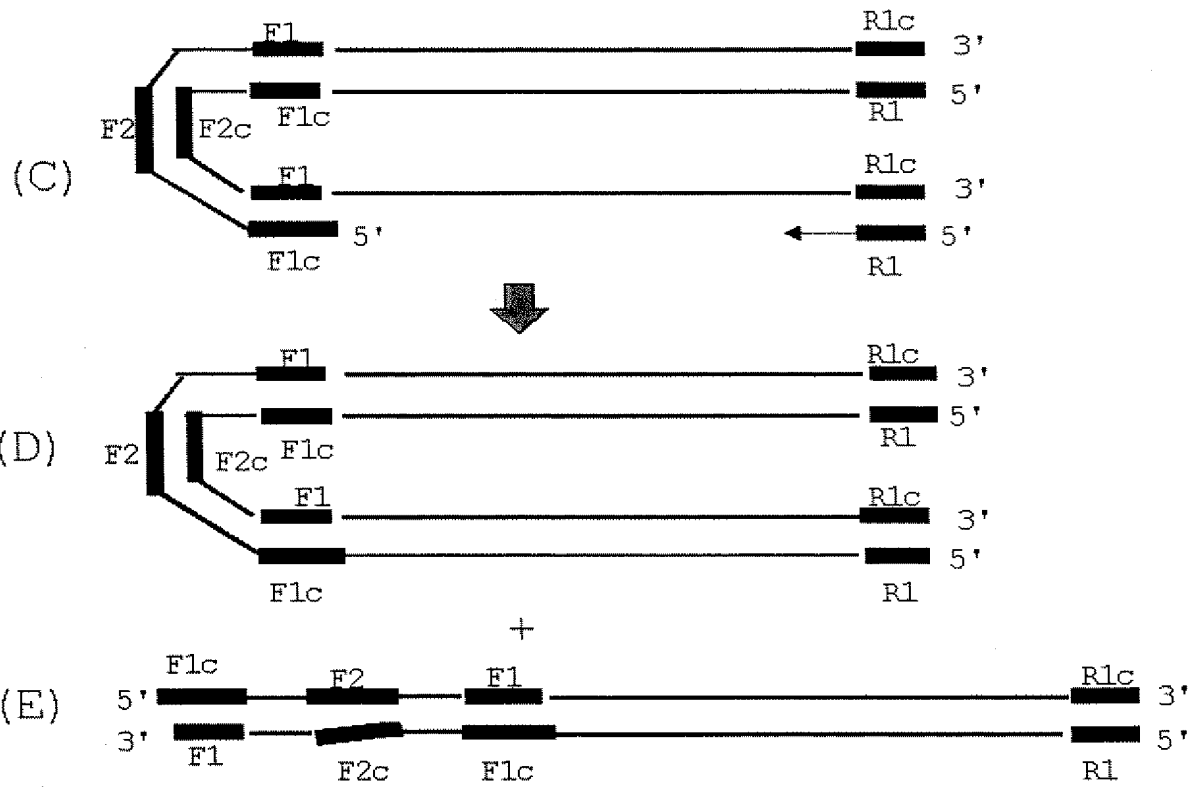
Fig. 5



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Fig. 6



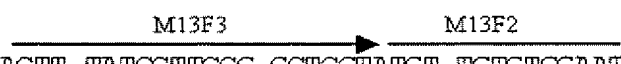
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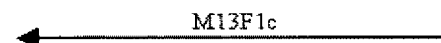
Fig. 7

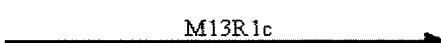
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6061 CGACAGGTTT COCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATG TGAGTTAGCT

6121 CACTCATTAG GCACOCCAGG CTTTACACTT  M13F3 M13F2

6181  TGTGAGOGGA TAACAATTTT ACACAGGAAA CAGCTATGAC CATGATTACG AATTCGAGCT

6241  CGGTACOCGG GGATCCTCTA GAGTCGACCT GCAGGCATGC AAGCTTGCCA CTGGCOGTG

6301  TTTTACAACG TOGTGACTGG GAAAACCTG GCGTTAOCOA ACTTAATOGC CTTGCAGCAC

6361  ATCOCCCTTT CGCCAGCTGG CGTAATAGCG AAGAGGOC CG CACCGATCGC CCTTCCCAAC

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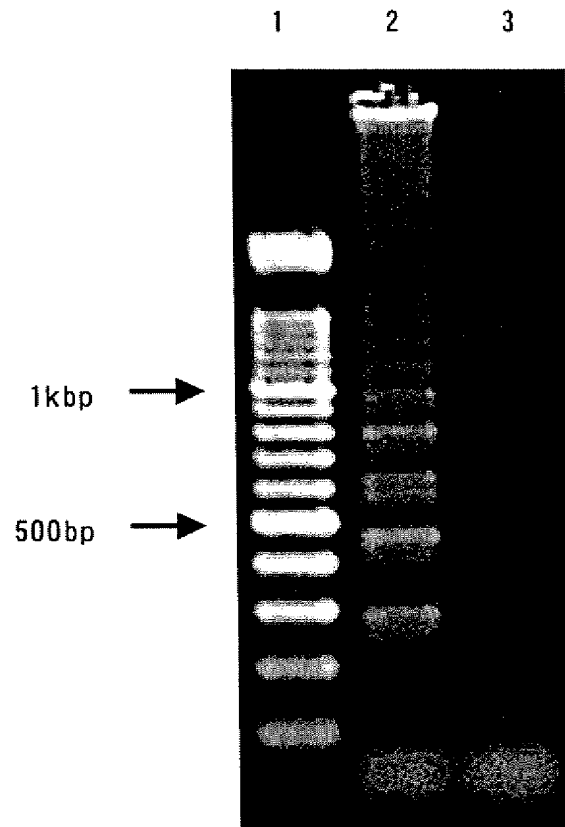
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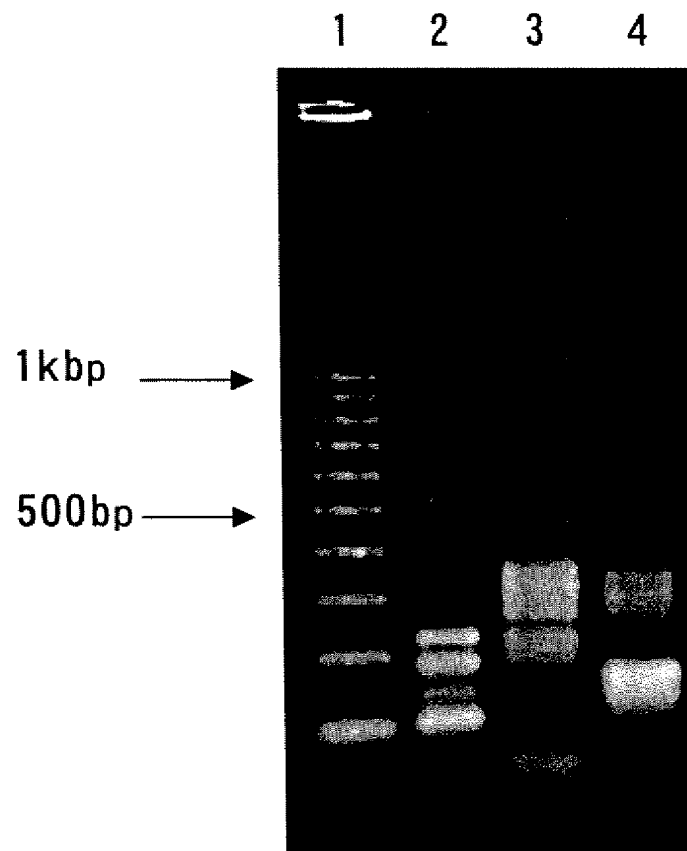
Fig. 8



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Fig. 9

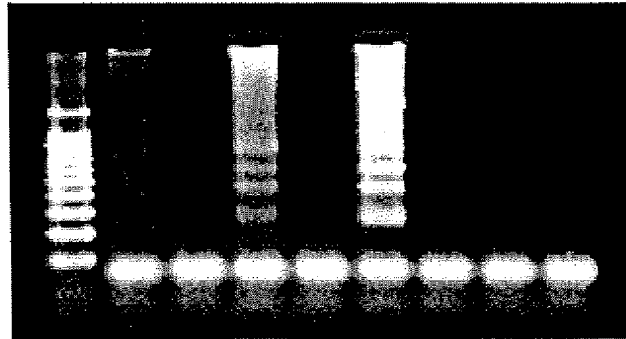


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Fig. 10

0 0.5 1 2M
-21 N -21 N -21 N -21 N



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Fig. 11

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61 OCTCACCATA CAGCACTCAG GCAAGCTATT CTGTGTTGGG GTGAGTTAAT GAATCTGGOC

HBF3 HB65F2

121 ACCTGGGTGG GAAGTAATTT GGAAGACCCA GCATCCAGGG AATTAGTAGT CAGCTATGTC

HB65F1c

181 AATGTTAATA TGGGOCTAAA AATCAGACAA CTATTGTGGT TTCACATTTC CTGCCTTACT

HB65R1c

241 TTTGGAAGAG AACTGTTTT GGAGTATTTG GTATCTTTTG GAGTGTGGAT TCGCACTCCT

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HB65R2 HBR3

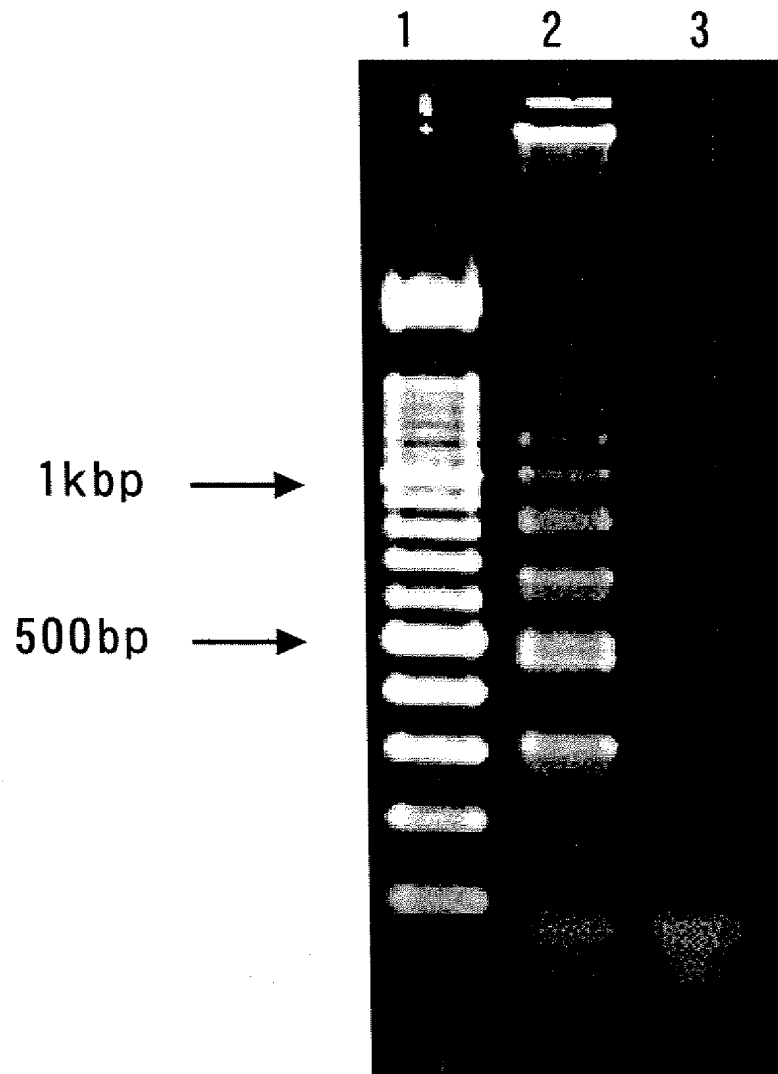
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421 TCGCCGCGTC

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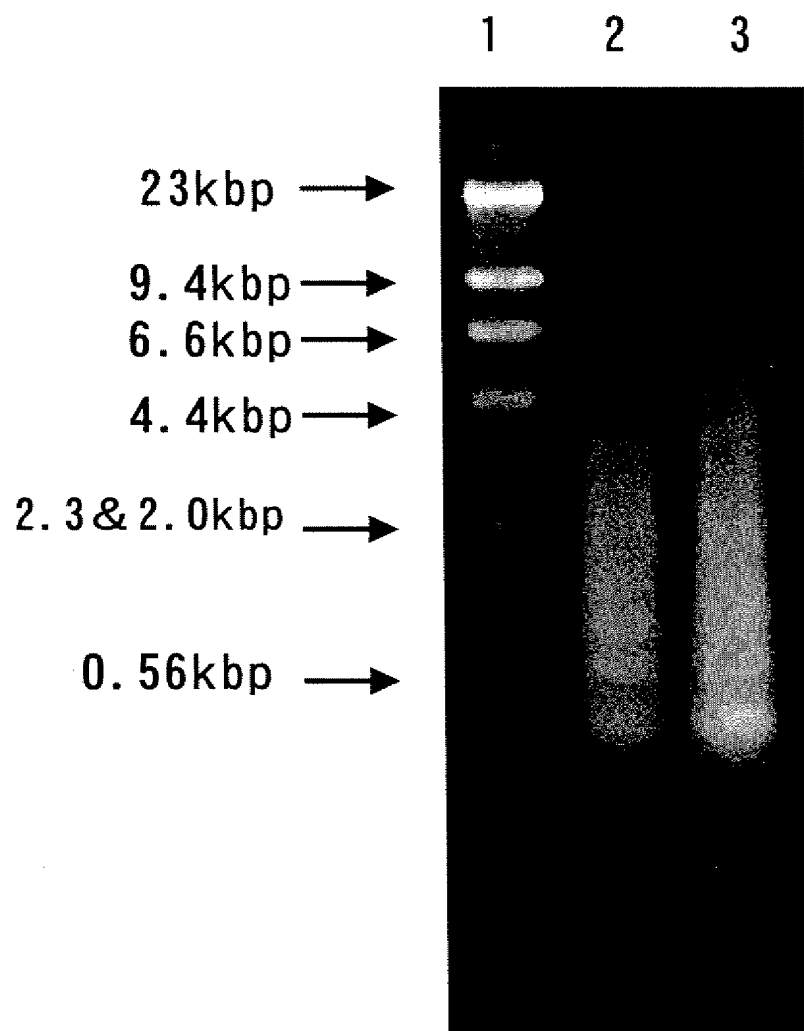
Fig. 12



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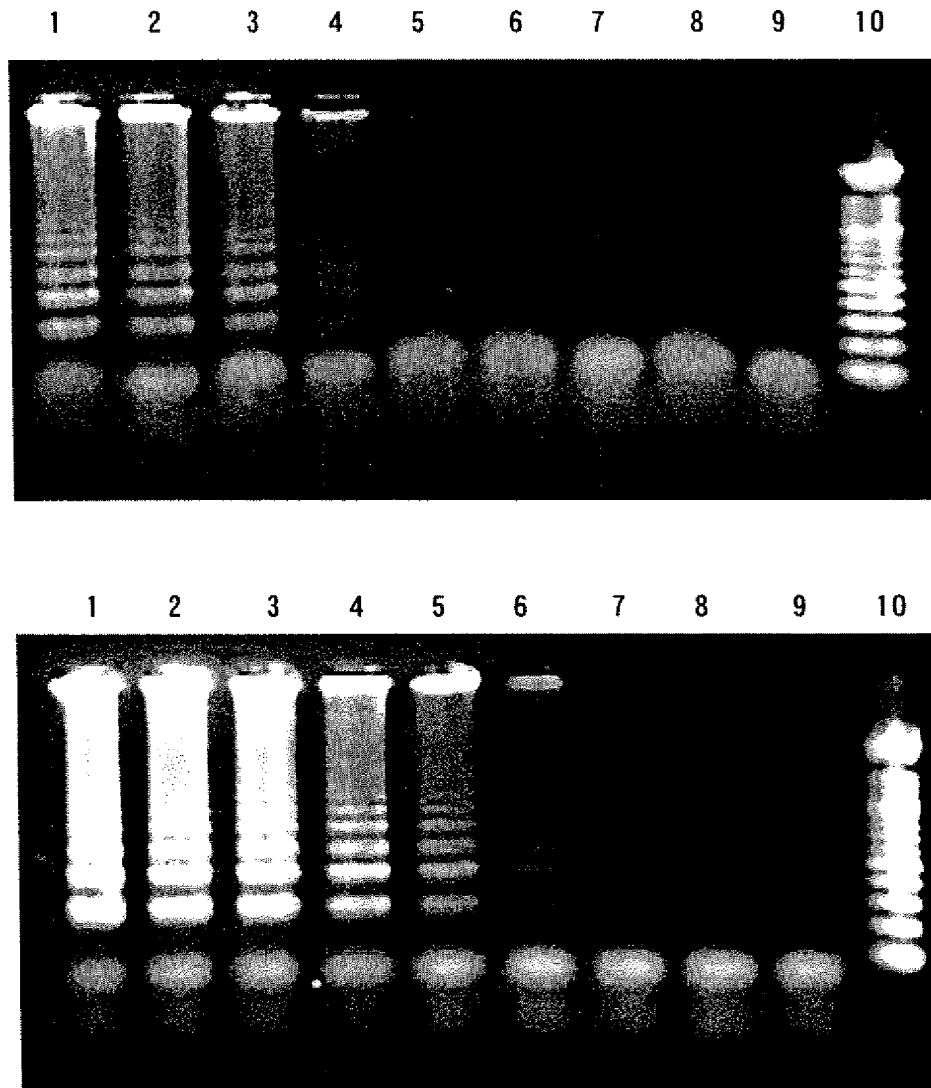
Fig. 13



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Fig. 14



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Fig. 15

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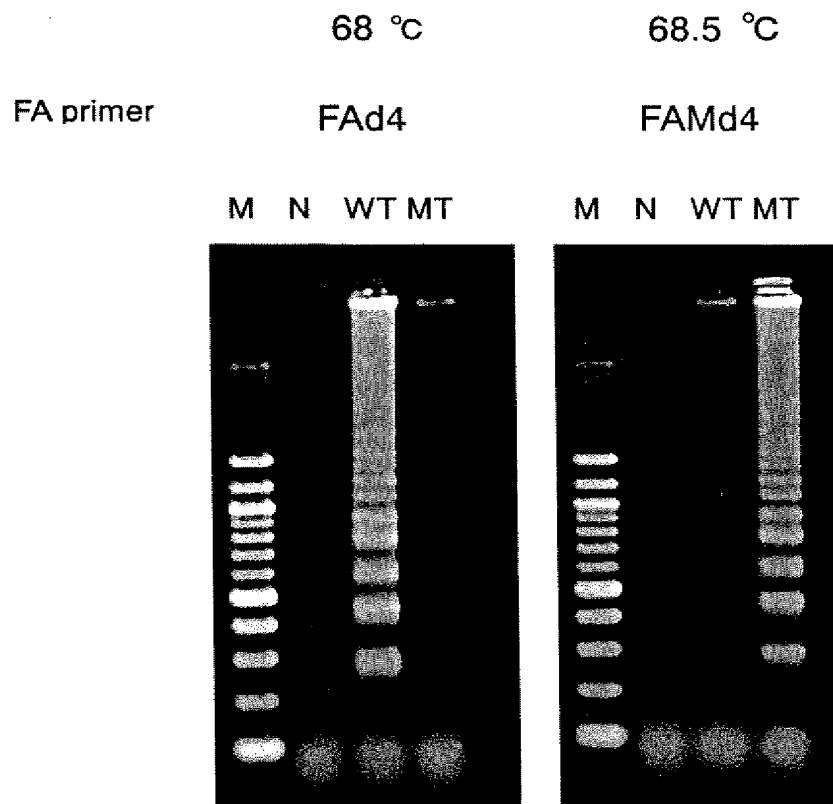
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                                     M13F3 → M13F2 d4
6121 CACTCATTAG GCACCCAGG CTTTACACTT TATGCTTCCG GCTCGTATGT TGTGTGGAAT
                                     ←
6181 TGTGAGCGGA TAACAATTTC ACACAGGAAA CAGCTATGAC CATGATTACG AATTCGAGCT
                                     M13F1c d4
6241 CCGTACCCGG GGATCCTCTA GAGTCGACCT GCAGGCATGC AAGCTTGGCA CTGGCCGTCG
                                     M13R1c d4 A
6301 TTTTACAACG TCGTGACTGG GAAAACCCTG GCGTTACCCA ACTTAATCGC CTTGCAGCAC
                                     ← M13R2 d4 ← M13R3
6361 ATCCCCCTTT CGCCAGCTGG CGTAATAGCG AAGAGGCCCG CACCGATCGC CCTTCCCAAC
6421 AGTTGCGCAG CCTGAATGGC GAATGGCGCT TTGCCTGGTT TCCGGCACCA GAAGCGGTGC
6481 CGGAAAGCTG GCTGGAGTGC GATCTTCCTG AGGCCGATAC GGTCGTCGTC CCCTCAAACCT
6541 GGCAGATGCA CGGTTACGAT GCGCCCATCT ACACCAACGT AACCTATCCC ATTACGGTCA

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Fig. 16



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Fig. 17

1 ATTCCGCCGG AGAGCTGTGT CACCATGTGG GTCCCGGTTG TCTTCCTCAC CCTGTCCGTG

61 ACGTGGATTG GTGCTGCACC CCTCATCCTG TCTCGGATTG TGGGAGGCTG GGAGTGCGAG

121 AAGCATTCCC AACCCCTGGCA GGTGCTTGTG GCCTCTCGTG GCAGGGCAGT CTGCGGCGGT

181 GTTCTGGTGC ACCCCCAGTG GGTCCCTCACA GCTGCCCACT GCATCAGGAA CAAAAGCGTG

241 ATCTTGCTGG GTCGGCACAG CCTGTTTCAT CCTGAAGACA CAGGCCAGGT ATTCAGGTC

301 AGCCACAGCT TCCCACACCC GCTCTACGAT ATGAGCCTCC TGAAGAATCG ATTCCTCAGG

361 CCAGGTGATG ACTCCAGCCA CGACCTCATG CTGCTCCGCC TGTCAGAGCC TGCCGAGCTC

421 ACGGATGCTG TGAAGGTCAT GGACCTGCCC ACCCAGGAGC CAGCACTGGG GACCACCTGC

481 TACGCCTCAG GCTGGGGCAG CATTGAACCA GAGGAGT

PSAF3 PSAF2 PSAF1c
Sau3AI PSAR1c PSAR2 PSAR3

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Fig. 18

